

SEQUENCE LISTING

SuSe (1) GENERAL INFORMATION:

(i) APPLICANT: IMMER, Hansueli
FORSSMANN, Wolf-Georg
ADERMANN, Knut
KLESSEN, Christian

(ii) TITLE OF INVENTION: PROCESS AND INTERMEDIATE PRODUCTS FOR
PREPARING CARDIODILATIN FRAGMENTS AND HIGHLY PURIFIED CARDIODILATIN
FRAGMENTS

(iii) NUMBER OF SEQUENCES: 11

b1 (iv) CORRESPONDENCE ADDRESS:

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(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) CURRENT APPLICATION DATA:

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(B) FILING DATE: 23-FEB-1998
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(vii) PRIOR APPLICATION DATA:

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(B) FILING DATE: 10-APR-1995

(ix) ATTORNEY/AGENT INFORMATION:

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(C) REFERENCE/DOCKET NUMBER: P1614-8019

(x) TELECOMMUNICATION INFORMATION:

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(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 17 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Cys Phe Gly Gly Arg Met Asp Arg Ile Gly Ala Gln Ser Gly Leu Gly
1 5 10 15

Cys

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 15 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

Leu Arg Ala Leu Leu Thr Ala Pro Arg Ser Leu Arg Arg Ser Ser
1 5 10 15

(2) INFORMATION FOR SEQ ID NO:3:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 5 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Asn Ser Phe Arg Tyr
1 5

(2) INFORMATION FOR SEQ ID NO:4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Peptide
- (B) LOCATION: 1

(D) OTHER INFORMATION: /note= "Xaa is an amino acid chain having chain length 0 - 15 amino acids."

(ix) FEATURE:

- (A) NAME/KEY: Peptide
- (B) LOCATION: 17

(D) OTHER INFORMATION: /note= "Xaa is an amino acid chain of 0 - 5 amino acids."

(ix) FEATURE:

- (A) NAME/KEY: Cross-links
- (B) LOCATION: 2..18

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Xaa Cys Phe Gly Gly Arg Met Asp Arg Ile Gly Ala Gln Ser Gly Leu
1 5 10 15

Gly Cys Xaa

(2) INFORMATION FOR SEQ ID NO:5:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 32 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Cross-links
- (B) LOCATION: 11..27

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

Thr Ala Pro Arg Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met
1 5 10 15

Asp Arg Ile Gly Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
20 25 30

(2) INFORMATION FOR SEQ ID NO:6:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /product= "Modified by a Boc protecting group and a tBu protecting group"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 4
- (D) OTHER INFORMATION: /note= "Modified by a tBu protecting group and a Pbf protecting group"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 7

(D) OTHER INFORMATION: /note= "Modified by a Pbf protecting group"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 8

(D) OTHER INFORMATION: /note= "Modified by a Pbf protecting group"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 9

(D) OTHER INFORMATION: /note= "Modified by a tBu protecting group"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 10

(D) OTHER INFORMATION: /note= "Modified by a tBu protecting group"

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 11

(D) OTHER INFORMATION: /note= "Modified by a Acm protecting group"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

Thr Ala Pro Arg Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly
1 5 10

(2) INFORMATION FOR SEQ ID NO:7:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 12 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 1

(D) Note INFORMATION: /product= "Modified by a Fmoc protecting group and a Pbf protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 3
(D) Note INFORMATION: /product= "Modified by a OtBu protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 4
(D) Note INFORMATION: /product= "Modified by a Pbf protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 8
(D) Note INFORMATION: /product= "Modified by a Trt protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 9
(D) Note INFORMATION: /product= "Modified by a tBu protecting group"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

Arg Met Asp Arg Ile Gly Ala Gln Ser Gly Leu Gly
1 5 10

(2) INFORMATION FOR SEQ ID NO:8:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 8 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) Note INFORMATION: /note= "Xaa is an Fmoc protecting group or H"

(ix) FEATURE:
(A) NAME/KEY: Modified-site

(B) LOCATION: 2
(D) Note INFORMATION: /product= "Modified by a Trt protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 3
(D) Note INFORMATION: /product= "Modified by a Trt protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 4
(D) Note INFORMATION: /product= "Modified by a tBu protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 6
(D) Note INFORMATION: /product= "Modified by a Pbf protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 7
(D) Note INFORMATION: /product= "Modified by a tBu protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 8
(D) Note INFORMATION: /note= "Xaa is O-OH or an O-OtBu protecting group"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

Xaa Cys Asn Ser Phe Arg Tyr Xaa
1 5

(2) INFORMATION FOR SEQ ID NO:9:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 19 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) Note INFORMATION: /note= "Xaa is H or an Fmoc protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 2
(D) Note INFORMATION: /product= "Modified by a Pbf protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 4
(D) Note INFORMATION: /product= "Modified by a OtBu protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 5
(D) Note INFORMATION: /product= "Modified by a Pbf protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 9
(D) Note INFORMATION: /product= "Modified by a Trt protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 10
(D) Note INFORMATION: /product= "Modified by a tBu protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 14
(D) Note INFORMATION: /product= "Modified by a Trt protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 15
(D) Note INFORMATION: /product= "Modified by a Trt protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 16
(D) Note INFORMATION: /product= "Modified by a tBu protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 18
(D) Note INFORMATION: /product= "Modified by a Pbf protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 19
(D) Note INFORMATION: /product= "Modified by a tBu protecting group and an OtBu protecting group"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

Xaa Arg Met Asp Arg Ile Gly Ala Gln Ser Gly Leu Gly Cys Asn Ser
1 5 10 15

Phe Arg Tyr

(2) INFORMATION FOR SEQ ID NO:10:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 32 amino acids
(B) TYPE: amino acid
(C) STRANDEDNESS:
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 1
(D) Note INFORMATION: /product= "Modified by a Boc protecting group and a tBu protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 4
(D) Note INFORMATION: /product= "Modified by a Pbf protecting

group"

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 5

(D) Note INFORMATION: /product= "Modified by a tBu protecting

group"

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 7

(D) Note INFORMATION: /product= "Modified by a Pbf protecting

group"

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 8

(D) Note INFORMATION: /product= "Modified by a Pbf protecting

group"

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 9

(D) Note INFORMATION: /product= "Modified by a Bu protecting

group"

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 10

(D) Note INFORMATION: /product= "Modified by a tBu protecting

group"

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 11

(D) Note INFORMATION: /product= "Modified by a Acm protecting

group"

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 15

(D) Note INFORMATION: /product= "Modified by a Pbf protecting

group"

(ix) FEATURE:

(A) NAME/KEY: Modified-site

(B) LOCATION: 17

(D) Note INFORMATION: /product= "Modified by a OtBu protecting

group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 18
(D) Note INFORMATION: /product= "Modified by a Pbf protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 22
(D) Note INFORMATION: /product= "Modified by a Trt protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 23
(D) Note INFORMATION: /product= "Modified by a tBu protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 27
(D) Note INFORMATION: /product= "Modified by a Trt protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 28
(D) Note INFORMATION: /product= "Modified by a Trt protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 29
(D) Note INFORMATION: /product= "Modified by a tBu protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 31
(D) Note INFORMATION: /product= "Modified by a Pbf protecting group"

(ix) FEATURE:
(A) NAME/KEY: Modified-site
(B) LOCATION: 32
(D) Note INFORMATION: /product= "Modified by a tBu protecting group and an OtBu protecting group"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

Thr Ala Pro Arg Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met
1 5 10 15

Asp Arg Ile Gly Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Tyr
20 25 30

(2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 32 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS:
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME/KEY: Modified-site
- (B) LOCATION: 11
- (D) Note INFORMATION: /product= "Modified by a Acm protecting group"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

Thr Ala Pro Arg Ser Leu Arg Arg Ser Ser Cys Phe Gly Gly Arg Met
1 5 10 15

Asp Arg Ile Gly Ala Gln Ser Gly Leu Gly Cys Asn Ser Phe Arg Thr
20 25 30